DOI: http://dx.doi.org/10.22122/ijbmc.v10i1.278 Published by Vesnu Publications

International Journal of Body, Mind and Culture

A Comparative Study of Family Structure (Cohesion and Flexibility) and Functioning in People with and without Drug Abuse

Shahryar Pirzadeh[1], Kamdin Parsakia[2]

[1] PhD in Psychosomatic Medicine, Psychosomatic Research Center, Isfahan University of Medical Sciences, Isfahan, Iran
[2] Research Assistant, Department of Counseling and Psychology, Iran-mehr the Institute for Social Study and Research, Tehran, Iran

Corresponding Author: Kamdin Parsakia***; Research Assistant, Department of Counseling and Psychology, Iran-mehr the Institute for Social Study and Research, Tehran, Iran***
Email: kamdinparsakia@iranmehr.ac.ir

Quantitative Study

Abstract

Background: Drugs are one of the main health problems in any country and are responsible for the spread of some infectious diseases. The aim of this study was to compare family structure (cohesion and flexibility) and functioning among people with and without drug abuse.
Methods: This causal-comparative study was performed on 100 people with drug abuse (using Morgan table) purposefully selected from 15 regions of Isfahan, Iran. In order to sample the population of healthy individuals, 100 persons without a history of substance abuse were selected as an available sample from among the companions of individuals with substance abuse and were matched with the substance abuse community in terms of their age. The data gathering tools used included a demographic characteristics form, and the Family Assessment Device (FAD) and Family Adaptability and Cohesion Evaluation Scale (FACES-III).
Results: The results showed that people with drug abuse have lower family cohesion, flexibility, and functioning compared to healthy individuals ($P < 0.001$).
Conclusion: It can be concluded that family functioning differed between the two study groups, so it can be stated that family functioning plays a role in youth's inclination toward drugs.
Keywords: Cohesion; Flexibility; Family functioning; Drug abuse

Citation: Pirzadeh S, Parsakia K. **A Comparative Study of Family Structure (Cohesion and Flexibility) and Functioning in People with and without Drug Abuse.** Int J Body Mind Culture 2023; 10(1): 82-9.

Received: 12 Jan. 2021
Accepted: 19 Nov. 2022

Introduction

Drugs are one of the main health problems in any country and are responsible for the spread of some infectious diseases (Saberi Zafarghandi, 2011). Iran has always had a high prevalence of drug use and addiction due to its neighboring countries that are among the hubs of drug production in the world (Vazirian, 2003). Drug addiction is defined as a patient's dependence on the use of one or more types of narcotics that cause drug-seeking behaviors (Asghari, Ghasemi Jobaneh, Ghary, 2015). The World Health Organization (WHO) (2015) defines addiction as a chronic state of eventuality that disrupts the individual and society due to the continuous use of drugs and stimulants (natural or abnormal). The distinguishing characteristics of addiction include a strong and uncontrollable desire to obtain drugs at any cost, the increase in its consumption at random, and the intense psychological and sometimes physical reliance on the use of those substances (World Health Organization, 2015).

Various researches have reported peer pressure, disruption of the socialization process, weakness of official and informal control and supervision, addiction of other family members, seeking relief from social pressures, the world view of drug users toward drugs and life, weakness in assertiveness and decision-making, curiosity and lack of knowledge of the side effects of substance abuse (AghaBakhshi, Sedighi, Eskandari, 2009), low self-esteem (Wheeler, 2010), weakness in self-control (Salehi Fadardi, Azad, & Nemati, 2010), and positive attitudes toward drugs (O'Connor, Fite, Nowlin, & Colder, 2007) as effective factors in drug use. Therefore, the causes of a dramatic increase in drug use can be sought in a person's relationships with their family (Allahverdipour, Farhadinasab, Bashirian, 2008; Doherty & Baird, 1983; ZadehMohammadi & Malek Khosravi, 2006).

Studying family members can be effective in a comprehensive study of the causes of addiction because many studies have cited family as one of the most important factors in the prevention of drug use in its members or their inclination toward drugs (Piko & Kovacs, 2010). Severe family conflict and poor bonding are associated with a wide range of destructive behaviors in adolescents, including substance abuse (Ghamari, 2011). Data from clinical interviews show that superficial and cold relationships exist in the primary families of these addicts, and this has increased the likelihood of their inclination toward drugs. Moreover, incorrect parental supervision method (Yahyazadeh, 2009) and their control variables (McKoid & Armech, 2001) also play an important role in its members' tendency toward substance abuse.

Family role strategies are related to various variables such as characteristics that exist in a multiplayer relationship, such as family cohesion or flexibility of that relationship. Reduction in family cohesion and increase in interpersonal conflicts can lead to a decrease in family flexibility that is associated with problems in interactions and family cohesion, which is actually emotional bonding between family members and the feeling of intimacy through feelings of belonging and acceptance in the family system (Ebrahimbabaie, Habibi, Ghanbari, & Ghodrati, 2017). These facts illustrate the importance of parents' role in preventing drug use, and emphasize the fact that prevention should start at home (Mohammad Khani, 2012).

Considering the important role of the family in controlling, reducing, or intensifying drug abuse in its members and with the aim of reducing social

harms, this study was conducted to investigate how family functioning and structure differ between drug users and healthy individuals. Thus, we tried to answer the questions: Can we take steps to reduce the tendency toward drugs through family functioning and structure? Is drug use picked up in the community or not?

Methods

This causal-comparative study was conducted on 100 people with drug abuse (using the Morgan table) purposefully selected from 15 regions of Isfahan, Iran. In order to sample the population of healthy individuals, 100 persons without a history of substance abuse were selected as an available sample from among the companions of people with substance abuse and were matched with the drug abuse group in terms of age. After receiving the necessary permissions and the letter of the ethics committee and presenting the letter to the addiction treatment centers, the researcher referred to these centers. In this study, in order to compare the two drug abuse and non-drug abuse populations in terms of variables such as family structure (cohesion and adaptability) and family functioning, 100 people from each community were selected through cluster random sampling method (for those with drug abuse) and random available method (for healthy individuals). The obtained data were analyzed in SPSS software (version 22; IBM Corp., Armonk, NY, USA). The study inclusion criteria included a history of at least 1 year of drug use for participants in the drug abuse group, no addiction to any drugs (natural or industrial) nor alcohol for the participants of the non-drug abuse group, and physical, intellectual, and mental health for people in both groups and the willingness to participate in this study.

The study tools included a demographic characteristics form, and the Family Assessment Device (FAD) and Family Adaptability and Cohesion Evaluation Scale (FACES-III).

Family Assessment Device: The FAD is a 62-item questionnaire developed to measure family functioning based on the McMaster model proposed by Epstein et al. (1923). Based on the McMaster Model of Family Functioning (MMFF), the FAD measures the structural, organizational, and transactional characteristics of families. The FAD consists of 6 subscales that assess the 6 dimensions of the MMFF (affective involvement, affective responsiveness, behavioral control, communication, problem solving, and roles) and a 7th scale that measures general family functioning. The measure is comprised of 60 statements about a family and the respondents (typically, all family members aged 12+) are asked to rate how well each statement describes their own family. The FAD is scored by adding the responses (1-4) for each scale and dividing it by the number of items in each scale (6-12). Higher scores indicate worse levels of family functioning. This model determines the structural, occupational, and interactive characteristics of the family. These dimensions are problem-solving, communication, roles, emotional companionship, emotional communication, and behavior control (Sanaei, 1998). The items are scored on 4-point scale ranging from 1 to 4 with the responses of I completely agree, agree, disagree, and completely disagree, respectively. According to the original form, each family member who is older than 12 years of age can fill out the FAD. If 40% of the items of a subscale are not completed, the score of the subscale will not be calculated (ZadehMohammadi & Malek Khosravi, 2006). The Cronbach's alpha of the

problem-solving, communication, emotional fusion, roles, emotional accountability, control, and overall family functioning subscales have been reported to be 0.72, 0.70, 0.73, 0.71, 0.73, 0.66, and 0.82, respectively, (ZadehMohammadi & Malek Khosravi, 2006).

Family Adaptability and Cohesion Evaluation Scale (FACES-III): The FACES-III was constructed by Olson et al. (1985) and consists of 40 items and the 2 subscales of cohesion (including 20 questions) and conformity (including 20 questions). The items are scored on a 5-point Likert scale ranging from 1 to 5 (never, rarely, sometimes, often, and always, respectively). The higher the cohesion score, the more intertwined the family is said to be, and the higher the compliance score, the more chaos there is in the family (Olson, Portner, & Lavee, 1985). In a study conducted by Mazaheri, Habibi, and Ashori (2014), the validity of family appraisal and continuity were evaluated and approve using Cronbach's alpha (the Cronbach's α for continuity was 0.74 and for adaptability was 0.75). The FACES-III has relatively good internal consistency with an alpha of 0.68 for the whole instrument, 0.77 for the cohesion subscale, and 0.62 for the adaptation subscale. The correlation coefficient of the family cohesion and adaptability subscale was, respectively, 0.83 and 0.80, which indicates very good stability. Its internal consistency was obtained using Cronbach's alpha (0.689 for cohesion and 0.636 for adaptability).

Ethical considerations: The research authorization was obtained from the Ethics Committee of Isfahan University of Medical Sciences, Iran. The research introduction letter was sent from the Research Deputy of Isfahan University of Medical Sciences to the selected addiction treatment centers. Before conducting the research and distributing the questionnaires, a comprehensive and concise explanation of the research objectives was provided, and this promise was made to the participants in the project that if possible, the results of the research would be sent to them. The participation of all participants in the research was completely voluntary and with complete informed consent. Participants were assured of the confidentiality of the obtained information. In the questionnaires, no characteristics or information regarding the identity of the subjects were obtained. Ethical principles in the use of scientific resources were observed in the writing of this article**.**

Results

Of the 200 participants in this study, 100 were evaluated in the substance abuse group and 100 in the healthy subjects group using the research tools. The mean ± standard deviation (SD) of age in the drug abuse and non-drug abuse groups were 38.50 ± 6.909 and 36.76 ± 5.19 years, respectively. There was no significant difference between the two groups in terms of mean age ($t = -0.37$; $P < 0.05$).

The mean and standard deviation of the research variables scores in the study groups are shown in table 1.

Evaluation of data properties showed that the statistical assumption of similarity of variance-covariance matrices for the family adaptability and cohesion and family functioning components (Box's $M = 94.52$; $P < 0.001$) was not established, and therefore, Pillai's index was used to significantly evaluate the multivariate effect. Pillai's index showed that the effect of group on the linear composition of the dependent variables was significant ($F = 19.19$; $P = 0.0001$; partial $\eta = 0.97$). In other words, there was a significant difference between the non-substance abuse

Table 1. Mean and standard deviation of the research variables scores in the study groups

Variables		Substance abuse		Non-substance abuse	
		Mean	SD	Mean	SD
Family conformity and solidarity Family Functioning	Cohesion	67.53	22.35	49.50	14.54
	Compliance	52.33	15.59	45.51	12.12
	Problem Solving	17.25	4.67	13.15	3.53
	Relationship	19.00	5.31	13.90	2.30
	Roles	18.60	4.16	13.65	2.39
	Emotional response	19.35	5.43	13.85	2.56
	Emotional sexual relationship	18.50	4.21	13.90	2.14
	Behavior Control	18.65	4.01	14.05	3.99
	Overall family performance	38.92	9.46	27.54	7.41

and substance abuse groups in at least one of the components of family adaptability, cohesion, and functioning.

Univariate ANOVA statistics were performed separately on each dependent variable to determine the significant source of the multivariate effect. Table 2 shows that group has a significant effect on family adaptability, cohesion, and functioning ($P < 0.001$).

Discussion

According to Olson, the level of common knowledge among healthy family members was higher, and weakening family relationships cause changes in families and harm them (Olson & Killorin, 1983). In addition, healthier families are more willing to talk and comment, which leads to the mutual understanding of parents and children, which in turn leads to the development of different psychological dimensions and maintains the mental health of children. Koerner and Fitzpatrick (1997) also found that families with more connections are less conflicted, and thus, they better express themselves and have a better understanding of each other.

Kourosh Nia and Latifian (2007) believe that emotional problems such as depression are more common in families that are not allowed to express their existence and have a dialogue. Greenwald (1990) also stated that family behavioral interactions affect children's behavioral quality.

Strengthening the relationship between children and parents is associated with a low probability of drug use, and the quality of parent-child relationships in healthy adolescents is better than in adolescents with addiction. All of these results indicate the importance of communication among family members. In addition, there was a significant difference between the two groups, and the families of the drug-dependent group participants had more inappropriate performance in this area (Greenwald, 1990).

Table 2. Results of the analysis of variance of family adaptability, cohesion, and functioning scores in the study groups

Variable	SS	df	MS	F	P-value	Eta
Cohesion	31550.72	1	31550.72	2139.86	0.001	0.91
Compliance	159895.12	1	159895.12	1803.76	0.001	0.90
Problem Solving	26450	1	26450	531.17	0.001	0.72
Relationship	15488	1	15488	480.54	0.001	0.70
Roles	1300.50	1	1300.50	759.58	0.001	0.79
Emotional response	1225.12	1	1225.12	742.38	0.001	0.78
Emotional sexual relationship	1512.50	1	1512.50	672.22	0.001	0.77
Behavior Control	1058	1	1058	764.54	0.001	0.79

SS; Sum of squres; df: Degree of freedom; MS: Mean of squqres

In this regard, parents can receive education on correct communication in the family through ways such as group training through various mass media. Studies have shown that healthy families have higher emotional cohesion, and low family bonding and commitment put adolescents at risk. According to the results of this study, it can be concluded that the improvement of the quality of family functions through family education programs can be expected to prevent risky behaviors such as drug use in children (Yahav, 2002).

In relation to the role of family, various studies confirmed the importance of the family functional role in guiding children (Klinge & Piggott, 1986; Gantman, 1978), and the role of parents in drug and alcohol consumption by children (Heydarnia & Charkhian, 2007). A study among Armenians in Tehran showed that lack of sufficient family support was the most important cause of addiction relapse (Farhoudian, Sadrosadat, Mohammadi, Manokian, Jafari, & Sadeghi, 2008). Karahmadi, Tabaiean, and Aghda (2007) also showed that children of families with an interactive model of acceptance and control had fewer symptoms of attention deficit and hyperactivity.

Regarding the area of problem-solving, previous studies have reported results similar to that of this study. For instance, Refahi (2008) reported that problem-solving skills training reduces suicidal thoughts and negative self-concept in adolescents with a history of suicide. A research on the effect of family-centered problem-solving training on the self-esteem of drug-dependent clients showed that using this training method can be effective in improving and completing the treatment process of addiction withdrawal as a non-pharmacology method (Habibi, Saleh Moghadami, Talaei, Ebrahimzadeh, & Moneghi Karimi, 2012). In relation to emotional companionship, Raeis Dana (2003) reported the mutual emotional relationship between parents and children to be strong in the Iranian culture and effective in preventing the spread of addiction among young people, which is in keeping with the results of this study and shows the importance of the preventive role of this emotional relationship in children.

In several studies, the preventive role of behavior control in addiction in children has been noted and is consistent with the results of this study. Considering that family functioning differed between the two groups studied in the present study, it can be concluded that family functioning plays a role in youth's tendency to industrial drugs. Although the prevalence of dependency in single individuals was more than married and separated individuals, this difference was not significant in the two groups. Evidently, it should be noted that the time of onset of use in the dependent group was not questioned and married dependents might have started their consumption before marriage, so it is necessary that this question be asked in future studies (Mazloomy, Ahmodabad, & Mirzaei, 2013). In this regard, & Wu (2009) also showed that alcohol consumption in single individuals is higher than in married individuals. In this study, the level of education of the dependent group participants was lower, which has also been reported in other studies (Bagheri, Nabavi, Moltafet, & Naghipour, 2010).

Furthermore, the parents of the dependent group had a lower education level, which is consistent with the results of the study by Fathi and Mehrabizadeh. The number of drug-dependent fathers was higher in the dependent group, which has also been observed in other studies. The number of drug-dependent brothers and unstable family pillars (including the death of one or both parents, as well as their divorce) was higher in the dependent group. Selnow (1987) also showed that the rate of drug use in children with a parent with drug addiction was higher (especially the father). In addition, the prevalence of drug use was higher in friends of the dependent group, which is consistent with the findings of Kim, Kwak, and Yun, (2010).

Conclusion

Family functioning differed between the two study groups, so it can be stated that family functioning plays a role in youth's inclination toward drugs.

Conflict of Interests

Authors have no conflict of interests.

Acknowledgments

We are grateful to all the participants in this research.

References

Aghabakhshi, H., Sedighi, B., & Eskandari, M. (2009). A survey on the effective factors of the youths 'tendency towards industrial drugs abuse'. *Social Research, 2*(4), 71-87. Allahverdipour, H., Farhadinasab, A., Bashirian, S., & Mahjoob, H. (2008). Pattern and inclination of adolescents towards substance abuse. *J Shahid Sadoughi Univ Med Sci, 15*(4), 35-42.

Asghari, F., Ghasemi Jobaneh, R., Ghary, M. (2015). The relationship between the family of origin Health and personality traits with addiction preparation in female students. *Entezam - e - Ejtemaei, 6*(4), 47-64.

Bagheri, M., Nabavi, A., Moltafet, H., & Naghipour, F. (2010). Survey of social factors affecting the drug phenomenon in Ahvaz. *J Appl Social, 21*, 119-136.

Blazer, D. G., & Wu, L. T. (2009). The epidemiology of substance use and disorders among middle aged and elderly community adults: National survey on drug use and health. *Am.J Geriatr.Psychiatry., 17*(3), 237-245. doi:00019442-200903000-00008 [pii];10.1097/JGP.0b013e318190b8ef [doi]. Retrieved from PM:19454850

Doherty, W. J., & Baird, M. A. (1983). *Family therapy and family medicine: Toward the primary care of families*. New York, NY: The Guilford Press.

Ebrahimbabaie, F., Habibi, M., Ghanbari, N., & Ghodrati, S. (2017). Comparing Family Structure (Cohesion and flexibility) in HIV positive and HIV negative individuals. *Zanko J Med Sci, 18*(57), 1-10.

Farhoudian, A., Sadrosadat, S., Mohammadi, F., Manokian, A., Jafari, F., & Sadeghi, M. (2008). Knowledge and attitudes of a group of Armenians in Tehran about drug addiction. *Adv Cogn Sci, 10*(2), 9-20.

Fathi, K., & Mehrabizadeh, H. M. (2009). Evaluation of depression, seeking, excitement, aggression, attachment styles and parent education as a predictors dependence of the drugs in the teenage boys in Ahwaz. *Educational studies and Psychology of Ferdosi University, 9*(2), 23-47.

Gantman, C. A. (1978). Family interaction patterns among families with normal, disturbed, and drug-abusing adolescents. *J Youth.Adolesc., 7*(4), 429-440. doi:10.1007/BF01537810 [doi]. Retrieved from PM:24408849

Ghamari, M. (2011). Comparing the dimensions of family function and quality of life and the relationship between these variables among addicted and non addicted individuals. *Journal of Research on Addiction*, 5(18):55-68.

Greenwald, D. F. (1990). Family interaction and child outcome in a high-risk sample. *Psychol.Rep., 66*(2), 675-688. doi:10.2466/pr0.1990.66.2.675 [doi]. Retrieved from PM:2349357

Habibi, R., Saleh moghadami, A., Talaei, A., Ebrahimzadeh, S., & Moneghi Karimi, H. (2012). The effect of family-centered problem solving teaching method upon the self esteem in drug-dependent clients. *Med J Mashad Univ Med Sci, 55*(1), 52-59.

Heydarnia, A., & Charkhian, A. (2007). A study on the quality of parental-child relationship in addicted adolescents versus normal ones. *Social Welfare, 6*(25), 39-58.

Karahmadi, M., Tabaiean, R., & Aghda, M. (2007). Parental interaction patterns in children with adhd and controls a comparative study. *J Shahid Sadoughi Univ Med Sci, 15*(1), 35-43.

Kim, E., Kwak, D. H., & Yun, M. (2010). Investigating the effects of peer association and

parental influence on adolescent substance use: A study of adolescents in South Korea. *J Crim Justice, 38*(1), 17-24.

Klinge, V., & Piggott, L. R. (1986). Substance use by adolescent psychiatric inpatients and their parents. *Adolescence., 21*(82), 323-331. Retrieved from PM:3739827

Koerner, A. F., & Fitzpatrick, M. A. (1997). Family type and conflict: The impact of conversation orientation and conformity orientation on conflict in the family. *Commun Stud, 48*(1), 59-75. doi: 10.1080/10510979709368491.

Kourosh Nia, M., & Latifian, M. (2007). Relationship between dimensions of family communication patterns and children's level of anxiety and depression. *Journal of Family Research, 3*(10), 587-600.

Mazaheri, M., Habibi, M., & Ashori, A. (2014). Psychometric properties of Persian version of the Family Adaptability and Cohesion Evaluation Scales (FACES-IV). *Iran J Psychiatry Clin Psychol, 19*(4), 314-325.

Mazloomy M., Ahmodabad, S. S., & Mirzaei Alavijeh, M. (2013). Parents role about prevention of drug tendency in children: an application of theory of planned behavior. *Tolooe Behdasht*, 2(1), 10-24.

McKoid C., Armech L. (2001). Etiology of substance abuse and addiction Youth and Teenagers. Tehran, Iran: Dovavin.

Mohammad Khani, S. H. (2012). Risk factors and conservatives of drug abuse in adolescents. Proceedings of the 1st National Congress on Drug Abuse Prevention; 2012; Tehran, Iran.

O'Connor, R. M., Fite, P. J., Nowlin, P. R., & Colder, C. R. (2007). Children's beliefs about substance use: an examination of age differences in implicit and explicit cognitive precursors of substance use initiation. *Psychol.Addict Behav, 21*(4), 525-533. doi:2007-18113-011 [pii];10.1037/0893-164X.21.4.525 [doi]. Retrieved from PM:18072835

Olson, D. H., & Killorin, E. (1983). *Clinical rating scale for the circumplex model of marital and family systems*. Minneapolis, MN: University of Minnesota.

Olson, D. H., Portner, J., & Lavee, Y. (1985). "Faces III": Family Adaptability & Cohesion Evaluation Scales, Family Social Science. Saint Paul, MN: University of Minnesota.

Piko, B. F., & Kovacs, E. (2010). Do parents and school matter? Protective factors for adolescent substance use. *Addict.Behav, 35*(1), 53-56.

Raeis Dana, F. (2003). The drug market in Iran. *Social Welfare, 3*(9), 243-262.

Refahi, Z. H. (2008). Life skills training as a prevention strategy for adolescent social psychopaths. *Journal of New Approach in Educational Administration, 1*(2), 135-151.

Saberi Zafarghandi, M. (2011). Some of the challenges of mental health and addiction in Iran. *Iran J Psychiatry Clin Psychol, 17*(2), 161-157.

Sanaei, B. (1998). *Family and Marriage Measurement Scales*. Tehran, Iran: Besat Publications.

Salehi Fadardi, J., Azad, H., & Nemati, A. (2010). The relationship between resilience, motivational structure, and substance use. *Procedia Soc Behav Sci, 5*, 1956-1960.

Selnow, G. W. (1987). Parent-child relationships and single and two parent families: Implications for substance usage. *J Drug Educ., 17*(4), 315-326. doi:10.2190/GBYN-HEQ1-23D0-N977 [doi]. Retrieved from PM:3430279

Vazirian, M. (2003). Review of drug demand reduction programs in Iran: Advices for development and strategic planning. *Social Welfare, 3*(9), 145-202.

Wheeler, S. B. (2010). Effects of self-esteem and academic performance on adolescent decision-making: an examination of early sexual intercourse and illegal substance use. *J Adolesc.Health., 47*(6), 582-590. doi:S1054-139X(10)00208-9 [pii];10.1016/j.jadohealth.2010.04.009 [doi]. Retrieved from PM:21094435

World Health Organization. (2015). *World report on ageing and health*. Geneva, Switzerland: WHO.

Yahav, R. (2002). External and internal symptoms in children and characteristics of the family system: a comparison of the linear and circumplex models. *Am J Fam Ther, 30*(1), 39-56. doi: 10.1080/01926180275345633.

Yahyazadeh, H. (2009). THE effects of family factors on drug abuse inclinations. *Social Research, 2*(5), 123-142.

Zadehmohammadi, A., & Malek Khosravi, G. (2006). The preliminary study of psychometric and reliability of family assessment device. *Journal of Family Research, 2*(5), 69-89.